

ACCESSION #: 9109040086

LICENSEE EVENT REPORT (LER)

FACILITY NAME: Yankee Nuclear Power Station, Rowe, MA. PAGE: 1 OF 02

01367

DOCKET NUMBER: 05000029

TITLE: Reactor Scram Due To Loss Of Generator Field

EVENT DATE: 08/03/91 LER #: 91-004-00 REPORT DATE: 09/02/91

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 088

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:

50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:

NAME: Gregory A. Maret, Technical TELEPHONE: (413) 424-5261

Director

COMPONENT FAILURE DESCRIPTION:

CAUSE: X SYSTEM: TL COMPONENT: EXC MANUFACTURER: G080

REPORTABLE NPRDS: N

SUPPLEMENTAL REPORT EXPECTED: Yes EXPECTED SUBMISSION DATE: 09/30/92

ABSTRACT:

On August 3, 1991, at 1647 hours, with the plant in Mode 1 at 78% power, the turbine generator static exciter input breaker opened, causing a loss of generator field with resultant turbine trip and reactor scram. There were no inoperable structures, components or systems that contributed to the event.

The root cause of the event is still under investigation. The plant is operating on the

rotating exciter.

This event is reportable per 10CFR50.73(a)(2)(iv) which identifies actuation of a Reactor Protection System as a reportable event. At no time during the event was the plant in an unanalyzed condition or in a condition outside the plant design basis. All Engineered Safety Feature systems and equipment operated as designed. Therefore, the health and safety of the public was not adversely effected by this event.

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DESCRIPTION OF EVENT

On August 3, 1991, at 1647 hours, with the plant in Mode 1 at 78% power, the turbine generator static exciter [EIIS-TL] input breaker [EIIS-52] opened, causing a loss of generator field with resultant turbine [EIIS-TRB] trip and reactor [EIIS-RCT] scram. Immediately on loss of generator field No. 1 Bus automatically disconnected from Station Service Transformer 1 [EIIS-XFMR] (SST-1) and connected to SST-3 (124 ACB opened and 1324 ACB closed) with resultant loss of the 4-1 Bus [EIIS-BU]. The 4-1 Bus was reenergized manually, per procedure, at approximately 1659 hours by closing the 424 and 448 ACBs. The Nonessential Uninterruptible Power Supply which was being supplied by the 4-1 Bus was repowered by the Security Diesel Generator at approximately 1648 hours. There were no inoperable structures, components or systems that contributed to the event.

CAUSE OF EVENT

The root cause of the event is still under investigation. The plant was returned to service on the rotating exciter.

ANALYSIS OF EVENT

mThis event is reportable per 10CFR50.73(a)(2)(iv) which identifies actuation of a Reactor Protection System as a reportable event. At no time during the event was the plant in an unanalyzed condition or in a condition outside the plant design basis. All Engineered Safety Feature systems and equipment operated as designed. Therefore, the health and safety of the public was not adversely effected by this event.

CORRECTIVE ACTIONS

The static exciter was removed from service. Appropriate corrective action to address the use of the static exciter will be determined following identification of the root cause of the event.

ADDITIONAL INFORMATION

The static exciter is a 400 kw General Electric Model 3S7931SA520, type 5020587.

SIMILAR EVENTS

A loss of generator field with resultant turbine trip and reactor scram occurred May 17, 1988. The root cause of that event was determined to be failure of the Static Exciter Field Overvoltage Protection unit circuit board. It was reported as LER 88-008.

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YANKEE ATOMIC ELECTRIC COMPANY Telephone (413) 424-5261

HC87 Box 160, Rowe, Massachusetts 01367

August 30, 1991

BYR 91-118

U.S. Nuclear Regulatory Commission

Document Control Desk

Washington, DC 20555

Subject: Licensee Event Report No. 50-29/91-004

Reactor Scram Due to Loss of Generator Field

Dear Sir:

In accordance with 10 CFR 50.73(a)(2)(iv), the attached Licensee Event Report is hereby submitted.

Very truly yours,

Normand N. St. Laurent

Plant Superintendent

DAR/pkc

ENCLOSURE

cc: [3] NSARC Chairman (YAEC)

[1] Institute of Nuclear Power Operations (INPO)

[1] USNRC, Region I

[1] Resident Inspector

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